

WE CLAIM:

1. A chimeric immunomodulatory compound (CIC) that stimulates production of IFN- α from human peripheral blood mononuclear cells, said CIC comprising at least three nucleic acid moieties, at least one of which comprises a sequence 5'-TCGY, where Y is selected from the group consisting of XCGX, XTCG, XXCG, and CGXX, where X is any nucleotide, and at least one nonnucleic acid spacer moiety.
2. The CIC of claim 1 comprising at least one multivalent nonnucleic acid spacer moiety.
3. The CIC of claim 1 wherein at least one nonnucleic acid spacer moiety comprises HEG, TEG, propyl, butyl, hexyl, pentaerythritol, 2-(hydroxymethyl)ethyl, glycerol, a polysaccharide, 1,3-diamino-2-propanol, or a dendrimer.
4. A CIC that stimulates production of IFN- α from human peripheral blood mononuclear cells but does not stimulate human B cell proliferation.
5. The CIC of claim 4 comprising a nucleic acid moiety comprising the sequence 5'-TCGAX_n, where X is any nucleotide and n is 1, 2, or 3.
6. The CIC of claim 5 wherein the nucleic acid moiety comprising the sequence 5'-TCGAX_n, where X is any nucleotide and n is an integer from 4 to 9.
7. The CIC of claim 5 comprising a nucleic acid moiety comprising the sequence 5'-TCGACGX_n, where X is any nucleotide and n is 1, 2, 3, or an integer from 4 to 7.

8. The CIC of claim 7 wherein N is 1.
9. The CIC of claim 8 wherein X is T.
10. The CIC of claim 9 having the structure (5'-TCGACGT-HEG)₂-glycerol-HEG-5'-TCGACGT or (5'-TCGACGT-HEG)₃-trebler-HEG-5'-TCGACGT.
11. A composition comprising a CIC of claim 4 and a pharmaceutically acceptable excipient.
12. A composition comprising a CIC of claim 11 and further comprising an antigen.
13. A composition comprising a CIC of claim 11 and further comprising a cationic microsphere.
14. A method of modulating an immune response in an individual comprising administering to an individual a CIC of claim 1 in an amount sufficient to modulate an immune response in said individual.
15. A method of modulating an immune response in an individual comprising administering to an individual a CIC of claim 4 in an amount sufficient to modulate an immune response in said individual.